R E P O R T R E S U M E S

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GROUP PLAY THERAPY AND TANGIBLE REINFORCERS USED TO MODIFY THE BEHAVIOR OF EIGHT-YEAR-OLD BOYS.

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THE PRESENT STUDY WAS DESIGNED TO DETERMINE WITHIN GROUP PLAY THERAPY--(1) THE COMBINATION OF EXPERIENCES WHICH PRODUCE THE GREATEST CHANGE IN BEHAVIORS AND THE EMOTIONAL STATE, AND (2) WHETHER TREATMENT INCLUDING TANGIBLE REWARDS PRODUCE MORE CHANGE THAN TREATMENT EXCLUDING THEM. THE 11 THIRD-GRADE BOYS REFERRED BY TEACHERS BECAUSE OF THEIR SHY, WITHDRAWN BEHAVIOR WERE RANDOMLY ASSIGNED TO THREE PLAY GROUPS. GROUP XA, COMPOSED OF FOUR BOYS, WAS TREATED BY THE THERAPIST (T), RECEIVING TANGIBLE REINFORCEMENTS IN THE FORM OF TOKENS FOR ASSERTIVE AND SOCIAL APPROACH BEHAVIORS. GROUP XB, COMPOSED OF FOUR BOYS, WAS SIMILARLY TREATED, EXCEPT THAT NO REINFORCEMENTS WERE GIVEN. GROUP CA, WITH THREE BOYS, SERVED AS THE CONTROL. RESULTS INDICATED THAT ALL GROUPS FAILED TO EXHIBIT CHANGE IN PRODUCTIVITY AS MEASURED BY TEACHERS'S GRADES, ANXIETY, GENERAL PSYCHOLOGICAL ADJUSTMENT, AS REPORTED BY MOTHERS. IN THE TWO REMAINING DEPENDENT VARIABLES, XA IMPROVED MORE THAN XB, AND XB IMPROVED MORE THAN CA. XA EXHIBITED INCREASED SOCIAL ADJUSTMENT AS MEASURED BY RESEARCH ASSISTANTS DURING THE THERAPY SESSIONS, AND DECREASED PROBLEM BEHAVIOR AS REPORTED BY THE MOTHERS. LIMITATIONS TO THE STUDY ARE--(1) THERE WAS ONLY ONE THERAPIST WHO ALSO SERVED AS THE SENIOR INVESTIGATOR, (2) THE VERY SMALL SAMPLE SIZE, (3) THE DIFFICULTY OF GENERALIZING FINDINGS, AND (4) THE QUESTIONABLE VALIDITY OF SUBJECTIVE MATERNAL REPORTS. (AUTHOR)

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Group Play Therapy and Tangible Reinforcers Used to Modify the Behavior of Eight-year-old Boys[1]

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Group and individual play therapy techniques are routinely used in most child guidance and psychiatric clinics throughout the country. Although the therapists who use these techniques believe in their efficacy in removing unwanted and in establishing more acceptable behavior patterns, few systematic studies have been reported on play therapy. Masling (1966) went so far as to say, "Research in child therapy is absolutely non-existent." While the situation is not quite this bad, there has been a general failure to demonstrate that play therapy techniques produce predictable changes in behavior and personality (Ginott, 1961, pp. 135-158; Levitt, 1957; 1963).

The present study was designed to shed some light on the following two questions which are concerned with child psychotherapy research: (1) Within the context of group play therapy, what combination of experiences produces the largest number of changes in behavior and in emotional state and/or the greatest degree of change? (2) Will a treatment approach which includes the systematic reinforcement with tangible rewards of preselected behaviors lead to more change than will a treatment approach which excludes tangible rewards?

For the present study "group play therapy" is defined as a situation in which a specially-trained person, the therapist, establishes a relationship with a group of children who exhibit behavior patterns which are personally and/or socially unacceptable. The therapist attempts to apply a behavioral model to modify the behavior of the children so that there will be an

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increase in (1) productivity in school and other settings, (2) the positive aspects of the self concept, (3) social attractiveness and the ability to get along with other people, and (4) the ability to cope with the problems of life, and so that there will be a decrease in discrete problem behaviors.

We assume that "group play therapy" is not a single treatment approach uniformly practiced by many child therapists, but rather it is a loose concept used to categorize a very large number of poorly defined techniques used in a multitude of combinations by many practitioners. Also we assume that there are significant differences between therapists both within a given "school" of play therapy as well as across schools. The problem, therefore, is that for the present study and data "group play therapy" can only refer to the specific techniques employed. Generalization to other approaches should be done only with great care.

Regardless of the approach, behavioral terminology may be used to describe what is going on in a given type of psychotherapy. At the onset of treatment each child has a habit-family hierarchy of responses. Some of the more dominant behaviors in the hierarchy are unacceptable to the child's parents, teachers, etc. Lower on the hierarchy are more acceptable behaviors. By selectively reinforcing these more acceptable behaviors and failing to reinforce the unacceptable behaviors, the frequency of occurrence of the desired responses should increase and that of the undesired responses should decrease.

A few attempts have been made to apply conditioning techniques to groups of adults (e.g., Lazarus, 1961), but apparently no study has been published on conditioning techniques applied to groups of children in a therapeutic setting. There have been many studies, however, using operant techniques on individual children, and most of them have reported positive results (e.g., Allen, Hart, Buell, Harris, and Wolf, 1964; Kerr, Meyerson, and Michael, 1965).

The primary hypothesis of the present study was that children who are systematically reinforced with tangible reinforcers will improve more than those who receive treatment without tangible reinforcers, and those who receive treatment without tangible reinforcers will improve more than those in a control situation.

Method

Subjects

Eleven third-grade boys from the Torrance Unified School District constituted the Ss. The mean age was 8 years 10 months with a range of 8 years 2 months to 9 years 3 months. The mean IQ from the California Test of Mental Maturity (CTMM), 1963

S-Form, was 100 with a range of 80 to 123. All of the boys were Caucasian; had appropriate speech; had never received any play therapy or psychotherapy before; did not exhibit psychotic or sociopathic behaviors; did not present symptoms of a perceptual-motor handicap; and met Fish and Shapiro's criteria for a Type III child with a "mild" global severity rating (Fish and Shapiro, 1965). Most Type III children have a formal diagnosis within the psychoneuroses. All Ss lived with both natural parents except for two boys. One S lived with his natural mother and his step father; the other S lived with his mother only, his father having died one year before the study began. The mean number of years of formal education for the fathers was 13.4 years with a range of 11 to 16. The mothers' mean was 12.4 years with a range of 11 to 14.

Selection Procedure

Sampling was done from 2,761 third-grade children from 105 classrooms and 33 grade schools. Each principal was asked to give a letter[3] to each of his third grade teachers requesting that the teacher send a form letter from the investigators to the parents of the two boys in her class who most closely fit the following description: "(1) socially withdrawn, very quiet, introverted, and friendless; (2) lacking in spontaneity; (3) maladjusted; and (4) not so withdrawn that he is unable to attend school regularly." The letter to the parents briefly described the study and asked the parents to contact the senior investigator if they would like to participate.

A group appointment was made for the mothers who applied. At this first meeting the mothers completed a social and developmental history for their boys. They also filled out a Behavior Problem Check List (BPCL), a Q-Sort (Block, 1961, pp. 154-156), and the Children's Manifest Anxiety Scale (Castaneda, McCandless, and Palermo, 1956). The mothers were asked to take their boys to their family physicians or pediatricians for a complete medical examination.

About one week after the mothers were seen each boy received a psychological evaluation covering intellectual and personality functioning. Group administrations were used for figure drawings, the Bender-Gestalt, and the CTMM. Cards I, III, VI, VIII, and X of the Rorschach and a sentence completion test were administered individually.

Based on the evaluation procedure, 12 Ss were selected who met the criteria previously listed. One S had to undergo major

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[3]All letters, instructions, questionnaires, etc. used in the present study which have not previously been published may be obtained in mimeographed form from the senior author.

surgery during the second week of the research program; therefore, he had to drop out, leaving a final N of 11.

Experimental Design

Independent variables. There were two independent variables: (1) the type of therapy administered to the Ss and (2) time, i.e., the number of group play therapy sessions. The experimental model was for a two-factor experiment with repeated measures on the second factor with unequal groups, i.e., $n_1 = 4$, $n_2 = 4$, and $n_3 = 3$ (Winer, 1962, pp. 374-378).

Ss in the first experimental group (XA) went through the evaluation procedure, came to the hospital once a week with their mothers, spent a minimum of 50 minutes in each group play session, met in a group of four boys in the playroom, were treated with the procedures suggested by Ginott (1960) for doing Group Psychotherapy with Children, and received tangible reinforcements when assertive and social-approach behaviors occurred. The tangible reinforcements consisted of brass tokens which could be accumulated to purchase candy, trinkets, and small toys at the end of each therapy hour (cf Ayllon & Azrin, 1965). The tokens could also be saved across therapy sessions to obtain the more expensive items. XA received a total of 14 therapy sessions.

The second experimental group (XB) received the same treatments administered to XA except the tangible reinforcers were excluded.

The Ss in the control group (CA) went through the evaluation procedure, came to the hospital once a week with their mothers, and met in a group of three boys in the playroom. This group did not have a therapist, but they were observed through a one-way mirror. They were allowed to do as they wished except to endanger anyone's physical safety and to damage the playroom and furnishings. One observer was always available to intervene temporarily in an emergency; however, active intervention was only required once.

The original 12 Ss were randomly assigned to the 3 groups. Each group was seen on a weekday at 9:00 a.m. for 14 consecutive weeks during the spring of 1966.

Mothers' guidance groups were held concurrently with the therapy and control sessions. The mothers were seen on the same day and at the same time as their sons were seen. The mothers' groups were run according to the suggestions of Ginott (1960, pp. 169-189), i.e., they were guidance rather than counseling or psychotherapy groups.

Dependent variables. Table 1 lists (1) the dependent variables, (2) the indices to them, (3) the source person

Table 1

Summary of the Dependent Variables

Dependent variable (DV)	Index to DV	Person providing data	When measured
Productivity	Grades on report card	Teachers	Quarterly during academic year
Anxiety	CMAS	Ss Mothers	Pre-therapy, 7th session, and 14th session
Social adjustment	Play room observations	Research assistants	Throughout each of the 14 play sessions
General psychological adjustment	Q-sort	Mothers	Pre-therapy, 7th session, and 14th session
Problem behaviors	BPCL	Mothers	Pre-therapy, 7th session, and 14th session

providing the data, and (4) when each index was measured. The dependent variables were taken from the definition of play therapy given in the Introduction. Valid indices to these dependent variables were sought which would provide highly objective and reliable data.

Much of the present data was obtained by directly observing through a one-way mirror the behavior of the children during the group play sessions. A time sampling technique was used to record the observations. The observer (O) recorded the behavior of each S by observing him every session for 12 one-minute periods taken at four-minute intervals. As is indicated in Table 1, the time sampling provided the "social adjustment" data.

Ten classes of behavior were recorded: (1) statements to Ss, (2) statements to the therapist (T), (3) questions to Ss, (4) questions to T, (5) non-verbal vocalizations, (6) verbal and symbolic aggression, (7) physical aggression, (8) solitary play, (9) social play, and (10) proximity. Specific criteria were established for each class of behavior. The proximity measure was made as follows: Strips of tape were laid on the playroom floor so that a grid of rectangles approximately one yard square was formed. If the S was in the same square as another child during any part of the 60 seconds the S was being observed, the S was scored for proximity.

Only one check mark per S per class of behavior per 60 seconds was allowed, making the maximum possible score 12 per S per behavior per play session.

Because of marked session-to-session variability, the data were grouped into blocks of sessions, i.e., sessions 1-4, 5-9, and 10-14. This grouping made the data more manageable and effected easier statistical evaluation.

Attendance at all sessions was not 100%; therefore, the following procedure was used for estimating raw scores for missing Ss. The mean of the S's raw score from the session preceding and following the missed session was computed. Second, the mean raw score obtained by the S's group on the day he missed was computed. The mean of these two means served as the S's estimated raw score for the day he missed. Most of the boys attended all of the sessions.

During the course of the study only one O recorded the behavior of a given group. Before the study began, therefore, a check was made on inter-observer reliability. Three observers who were using the time sampling system for the first time observed a pilot group for one session. Pearson product-moment correlation coefficients yielded r's of .86, .88, and .93 for the three possible pairings of the three Os. A second reliability check was run on the final therapy session at the

end of the present study. The r's at this time were .97, .99, and .99, indicating extremely high inter-observer reliability.

Statistics. As has already been mentioned, the primary analysis was based on a 3 X 3 factorial design with repeated measures on the second factor (Winer, 1962, pp. 374-378). Supplementary evaluations included (1) single-factor analyses of variance for XA, XB, and CA taken individually (Winer, 1962, pp. 105-132), (2) trend tests (Winer, 1962, pp. 132-135), and (3) tests on all pairs of means using the Tukey (a) procedure (Winer, 1962, pp. 87-89).

Personnel and Equipment.

The therapist for XA and XB was the senior investigator. The leader of the three mothers' groups was the junior investigator. The three observers were volunteer research assistants. They were all young homemakers who had volunteered to work specifically on the present project and were not acquainted with any of the Ss.

The playroom measured 19 by 8½ feet. There was a one-way mirror at one end, and a sound system connected the play and observation rooms. The playroom contained a blackboard, a children's picnic table with attached benches, an easel, and a toy chest. The play materials consisted of crayons, finger paints, paper, chalk, building blocks, a doll house, two five-member doll families, four toy revolvers, a plastic war set with soldiers, tanks, jeeps, etc., a Bobo punching bag, and a small tape recorder.

Results

The results of the major statistical tests are summarized in Table 2. Columns (1), (2), and (3) present the F ratios from the two-factor analyses of variance. For the time sampling data the raw scores used in the analyses were the mean scores for each S from sessions 1-4, 5-9, and 10-14. The symbols in columns (4), (5), and (6) indicate the outcomes of the single-factor tests performed for each play group when factor A, B, or AB was significant on the two-factor analysis. The symbol "0" indicates that no change occurred, "+" that the group improved on the measure, and "-" that the group got worse.

No Difference between Groups, No Changes over Sessions

Six measures of the dependent variables failed to produce any significant F's for groups, sessions, or groups-sessions interaction (see Table 2). The measures were achievement (i.e., the mean grade in reading, English, spelling, arithmetic, and social studies), boys' scores on the CMAS, mothers' scores on the CMAS, questions to T, aggression (verbal and symbolic), and the Q-Sort.

Table 2
Summary of the Results of the Two-factor and Single-factor Analyses of Variance

Measure	F Ratios (1) Groups	(2) Sessions	(3) Interaction	Results of Single-factor Analyses of Variance (4) XA	(5) XB	(6) CA	Criterion for Improvement
Achievement	.43[a]	.38[b]	1.75[c]	0	0	0	Increase
Citizenship	9.31*[a]	.74[b]	.07[c]	0	0	0	Decrease
Boys' CMAS	.79[d]	.15[e]	.05[f]	0	0	0	Decrease
Mothers' CMAS	6.17[d]	.46[e]	2.67[f]	0	0	0	Decrease
Statements to Ss	8.52**[d]	3.44[e]	7.04**[f]	+*	0	0	Increase
" " $\bar{T}$	.79[g]	6.81*[b]	3.58[b]	0	+**	0	Decrease
Questions to Ss	11.25**[d]	2.51[e]	1.26[f]	0	0	0	Increase
" " $\bar{T}$	.32[g]	.14[b]	.11[b]	0	0	0	Decrease
Non-verb. vocal.	2.58[d]	1.75[e]	3.28*[f]	0	0	0	Increase
Aggression (V & S)	2.33[d]	.27[e]	.40[f]	0	0	0	Increase
" (Phys.)	2.61[d]	1.84[e]	3.78*[f]	0	0	0	Decrease
Play (Solitary)	38.94**[d]	3.47[e]	1.57[f]	0	0	0	Decrease
Play (social)	16.99**[d]	.23[e]	24.52**[f]	+**	-**	0	Increase
Proximity	29.02**[d]	37.23**[e]	15.75**[f]	+**	+**	0	Increase
Q-Sort	.10[d]	.50[e]	2.35[f]	0	0	0	Increase
BPCL	9.09**[d]	3.00[e]	.71[f]	+*	0	0	Decrease
	Improved	(+)		4	2	0	
	No change	(0)		12	13	16	
	Worse	(-)		0	1	0	

*$P < .05$
**$P < .01$
[a]With 2 and 6 df
[b]With 2 and 12 df
[c]With 4 and 12 df
[d]With 2 and 9 df
[e]With 2 and 18 df
[f]With 4 and 18 df
[g]With 1 and 6 df

Differences between Groups, No Changes over Sessions

In five cases the "groups" or "interaction" factor was significant, but the "sessions" factor did not reach significance. In all of these instances single-factor analyses of variance revealed no reliable changes over sessions in group XA, XB, or CA. Although Table 2 shows a reliable difference between groups for "citizenship," this difference existed on the pre-therapy grades in citizenship ($P < .05$). For "questions to Ss" the same kind of problem existed. The groups were different on the very first play session ($P < .05$). For the time sampling data a significant F on the first play session was taken to mean that due to sampling error the groups started out different at the beginning of treatment. "Non-verbal vocalizations" and "aggression (physical)" produced significant interactions only. The groups were different on "play (solitary)" (XA < XB, $P < .01$; XA < CA, $P < .05$; and XB > CA, $P < .01$), but the "sessions" factor was not significant.

Changes over Sessions

No indication was given by the preceding measures that the treatment procedures had any effect on the dependent variables. The results are more positive for the remaining measures.

Statements to Ss. Table 2 indicates that only XA exhibited a reliable increase in the amount of verbal communication between the early part of treatment and the latter part. A trend test on group XA indicated a significant linear trend ($P < .01$). For the time factor, sessions 1-4 are indicated as "b_1," sessions 5-9 as "b_2," and sessions 10-14 as "b_3." Tests on all pairs of means for XA showed that $b_1 < b_3$ ($P < .05$), but $b_1 = b_2$ and $b_2 = b_3$ (see Fig. 1).

Statements to T. A reliable decrease in scores on this measure was defined as improvement. The assumption underlying the definition was that shy, withdrawn children are overly-dependent on adults at the beginning of therapy. As they become less dependent on T, they talk to him less and to the other children more. Trend analysis for XB indicated a significant linear trend ($P < .01$). Tests on all pairs of means produced the following results: $b_1 > b_2$ ($P < .05$), $b_1 > b_3$ ($P < .01$), but $b_2 = b_3$ (see Fig. 2).

Play (social). Both XA and XB changed during the course of treatment; however, the boys in XA increased in the amount of time they spent playing with each other, whereas the Ss in XB decreased (see Fig. 3). Trend tests on XA revealed a significant linear trend ($P < .01$), but both the linear and quadratic trends were significant at the .01 level for XB. Tests on all pairs of means for XA demonstrated that $b_1 < b_3$ ($P < .01$), $b_2 < b_3$ ($P < .01$), and $b_1 = b_2$, and for XB $b_1 > b_2$ ($P < .01$), $b_1 > b_3$ ($P < .01$), and $b_2 < b_3$ ($P < .05$).

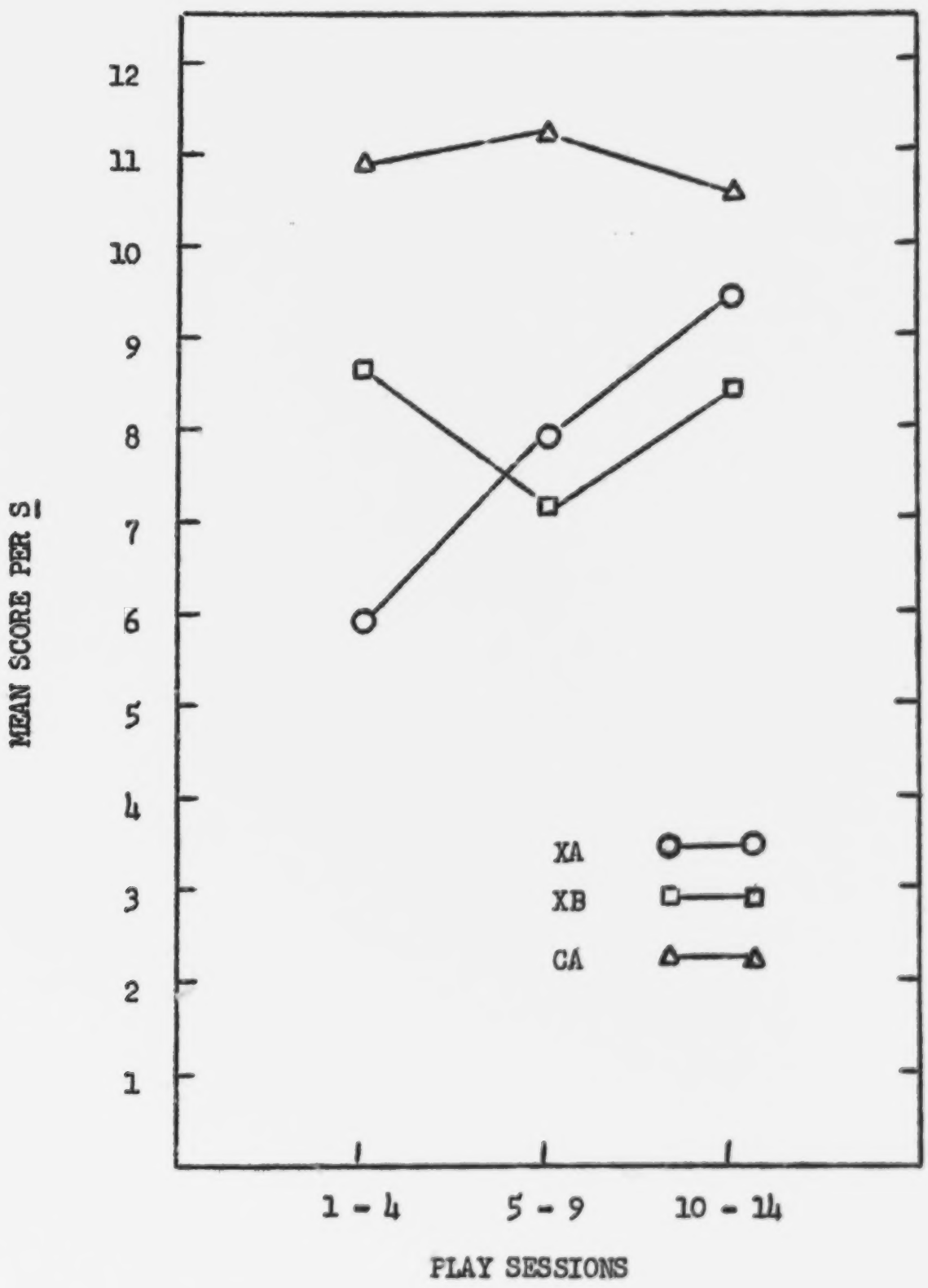

Fig. 1. Frequency of "statements to Ss" averaged for the first four, middle five, and last five play sessions.

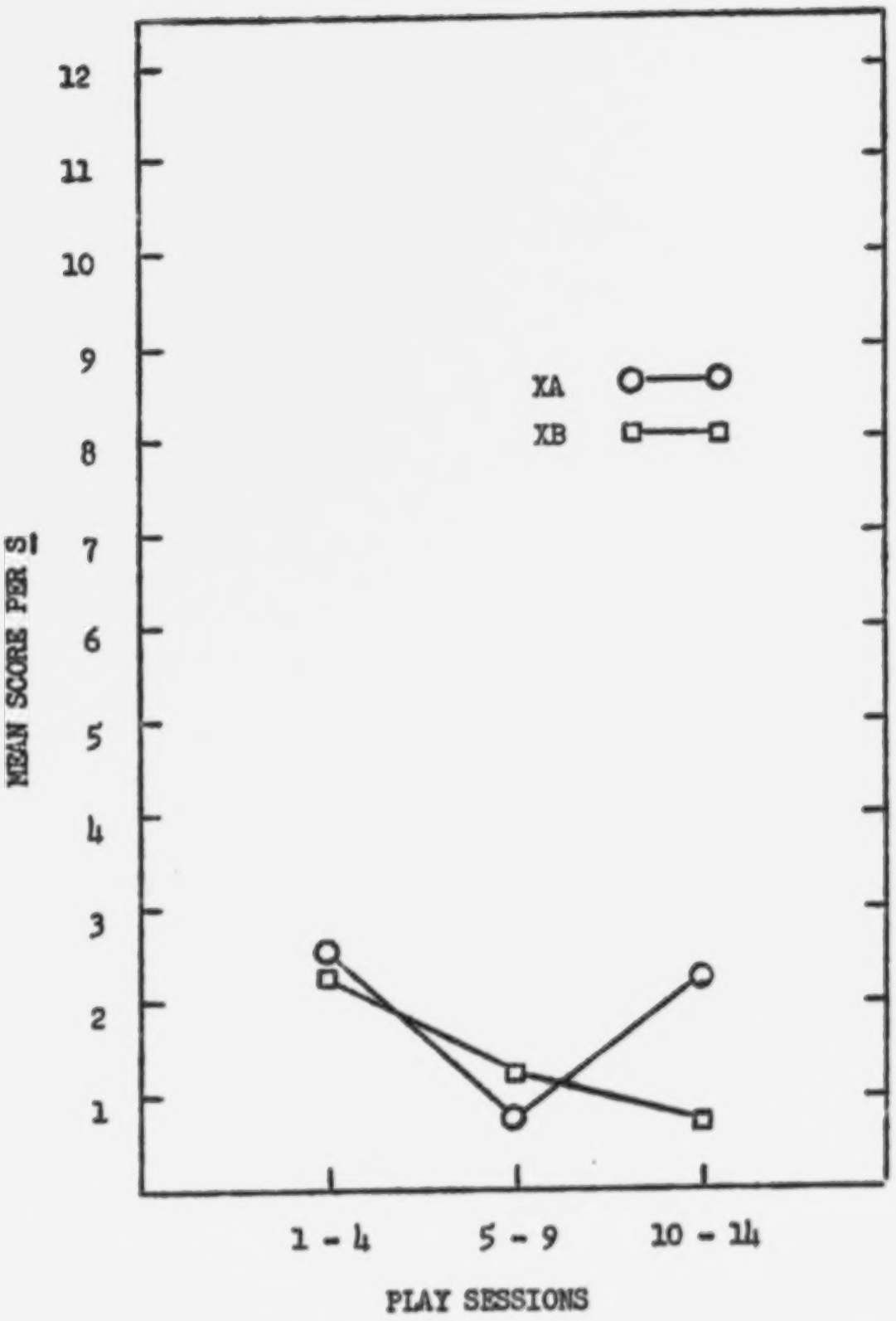

Fig. 2. Frequency of "statements to T" averaged for the first four, middle five, and last five play sessions.

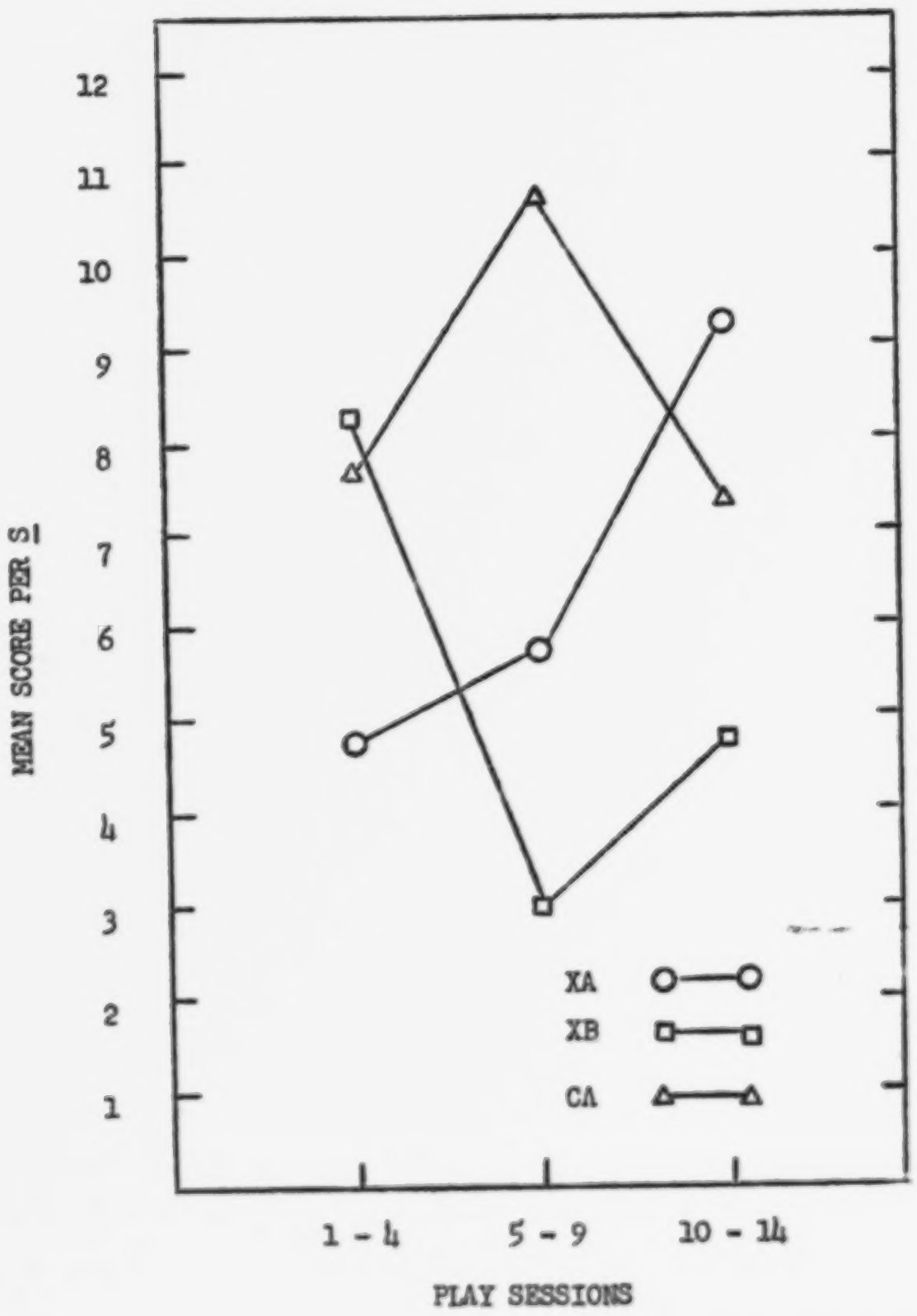

Fig. 3. Frequency of "social play" averaged for the first four, middle five, and last five play sessions.

Proximity. XA and XB exhibited reliable increases during treatment on this measure (see Fig. 4 and Table 2). Trend tests indicated significant linear and quadratic trends for both XA and XB. Tests on all pairs of means showed that for XA $b_1 < b_3$ ($P < .01$), $b_2 < b_3$ ($P < .01$), $b_1 = b_2$, and for XB $b_1 > b_2$ ($P < .01$), $b_1 < b_3$ ($P < .01$), and $b_2 < b_3$ ($P < .01$).

Behavior Problem Check List. Although the groups did not differ on the pre-therapy measures, they became reliably different during treatment (see Table 2). Tests on all pairs of means for the groups factor revealed that XA < XB ($P < .01$), XA = CA, and XB > CA ($P < .01$). All three groups had lower raw scores on the post-therapy measures than on the pre-therapy measures, but the over-all time effects were not significant. A trend analysis of XA's data showed a significant linear trend ($P < .05$), and tests on all pairs of means indicated that $b_1 > b_3$ ($P < .05$), $b_1 = b_2$, and $b_2 = b_3$.

Mothers' Subjective Evaluations

At the end of treatment the mothers of the 11 Ss were asked to write about any change which they had observed in their boys during the time they were coming to the group sessions. Ten of the mothers listed changes. One said that her boy's stealing had gotten worse. All of the other mothers listed positive changes only. Even the mother of the stealing boy indicated that her son's teacher felt he had improved at school.

The types of changes which were listed were "more assertive," "happier," "more concerned about doing well in school," "more self assured," "now has a good attitude toward himself," "is 'branching out'," "his tears are less frequent," "more stable," "less shy," "tells stories to his dad and relates the happenings of the day," "neighbors report him as more aggressive," "teacher says he speaks up for himself now," "not so fearful," "not so hard to get along with," "is enjoying his PE class now," "plays more with kids outside," "more competitive," "more energetic," etc.

There was no apparent difference in quality or quantity of these responses between the three groups.

Discussion

A common belief found in many child guidance centers is that emotional conflicts can lead to underachievement in school work but that psychotherapy usually leads to an increase in academic productivity (e.g., Bills, 1950a; 1950b). No such increase was noted in the Ss of the present study; however, the boys had not been referred as underachievers. Inspection of their grades suggested a fairly normal mean and distribution, indicating that on the average the boys had been working up to

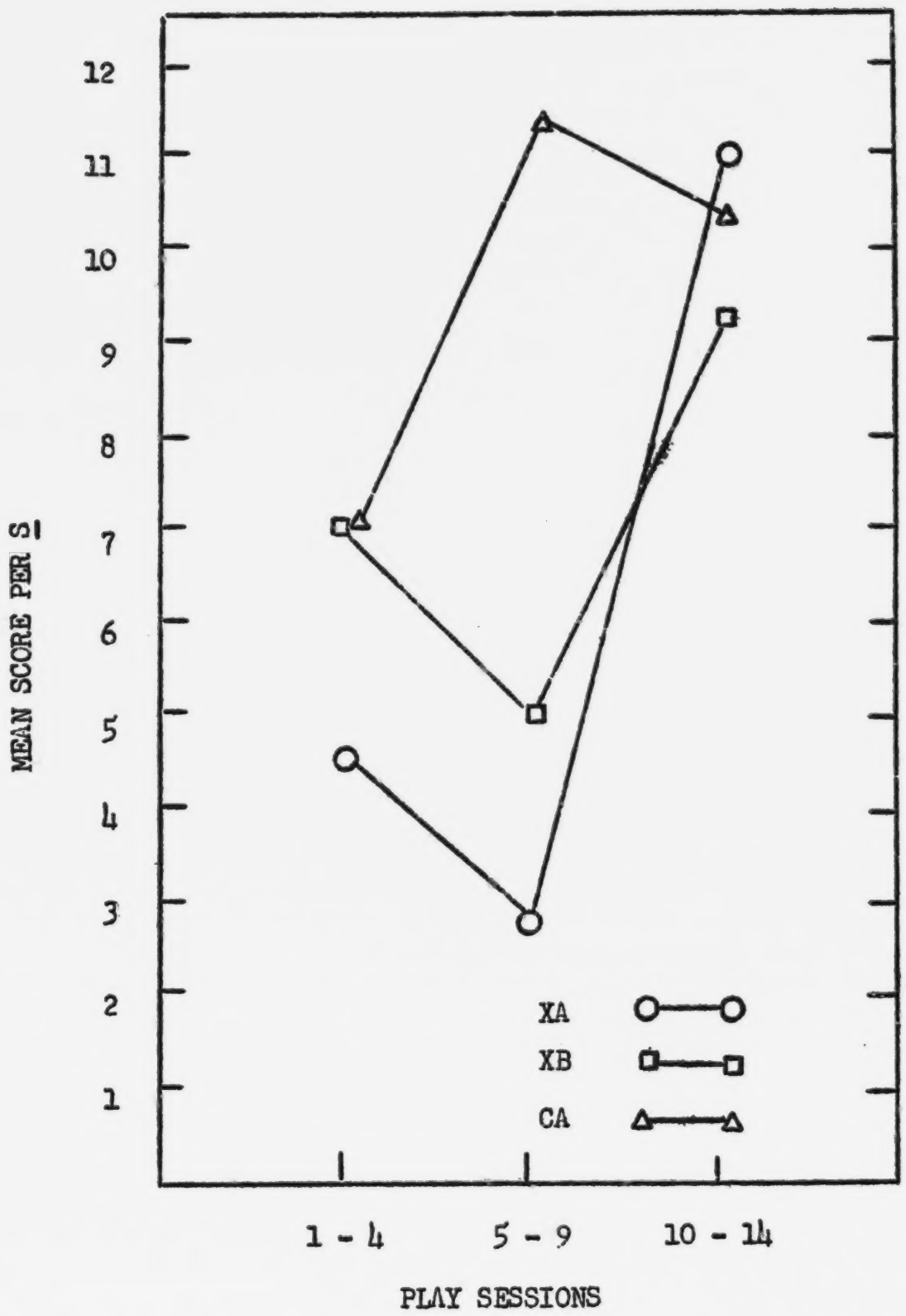

Fig. 4. Frequency of "proximity" averaged for the first four, middle five, and last five play sessions.

capacity before treatment began. The use of school grades as a dependent variable was probably inappropriate for boys with the presenting symptoms of these Ss.

Another common belief held by child therapists is that anxiety decreases as therapy progresses. The measure of anxiety used in the present research showed no reliable change during the course of treatment. The length of treatment may have been too short to produce any consistent changes; but, the Ss' raw scores indicated that the lack of change in CMAS scores may have had the same cause as the lack of change in grades, i.e., the mean anxiety score was close to the mean for all 8- and 9-year-old boys. In order for the Ss as a group to have improved on this measure would have required them to exhibit less anxiety than typical boys their age.

After reviewing the literature on child psychotherapy research, Levitt (1957; 1963) said, "...the inescapable conclusion is that available evaluation studies do not furnish a reasonable basis for the hypothesis that psychotherapy facilitates recovery from emotional illness in children (1963)." The present study has provided data which contradict the impression that child therapists are unable to demonstrate that formal treatment makes a difference. The primary hypothesis stated in the Introduction appears to have been substantiated. XA improved on four variables; XB improved on two and got worse on one; and CA, the control group, did not show any improvement. The present study included a truly matched control group; whereas, although Levitt claimed to use a well-matched control group for his comparisons, his control and experimental Ss were not obtained from the same population and at the same point in time.

Eysenck (1954; 1964) has made much of the idea of spontaneous recovery occurring in psychoneurotic disorders without formal treatment, but Kiesler (1966) criticized the conclusions of Eysenck and claimed that "spontaneous recovery" is a myth. The results of the present study contradict Eysenck's conclusions and agree with Kiesler. No spontaneous changes appeared in CA during the period these control Ss were studied.

The problem of evaluating parents' subjective reports of improvement in their children during and following therapy is pointed out in the present results. All of the mothers except one reported improvement in their boys. Their comments implied more improvement during the course of treatment than was observed on the objective data. The assumption has been made in writing this Discussion that the mothers' reports were unreliable; however, their subjective reports provided the kind of data typically used in clinical settings to evaluate outcome of child treatment. The discrepancy between objective and subjective data points out the need for systematic study of the causes of the obtained differences.

Ayllon and Azrin (1965) demonstrated the effectiveness of treating adult psychotic patients with metal tokens which could be traded for desired objects. The present study showed that the same type of operant conditioning technique is effective in treating shy, withdrawn 8-year-old boys in a group play situation. Fig. 1 indicates most clearly the impact the tokens had on XA's behavior. Although some child therapists may be repulsed by the idea of giving brass tokens to the children they are treating, the use of such a procedure will probably increase the therapeutic impact of the therapist on his clients.

There is so much session-to-session variability in the behavior of 8-year-old boys in a group play situation that week-to-week predictions are very precarious. Accurate prediction becomes more possible when T looks for general trends based on data averaged on groups of sessions, i.e., meaningful predictions may be made from month to month but not from week to week.

The major criticisms of this study are as follows: (1) There was only one T. (2) The senior investigator and T were the same person. Ideally T should not be aware of the major hypotheses of the research project. (3) The sample size was very small. (4) The sample represented only one type of presenting problem out of the many which confront the typical child guidance clinic. (5) The data do not lend themselves to reasonable generalization to other groups representing other kinds of problems. And (6) although an attempt was made to avoid the major criticisms of psychotherapy research (e.g., Kiesler, 1966), the present paper did not solve the most important problem of providing an adequate research paradigm which will lead to systematic theory construction and modification.

Finally there has been relatively little systematic research on psychotherapy with children. One of the reasons for this lack of research has been the apparent difficulty in obtaining an adequate sample. The present study demonstrates an effective approach for obtaining reasonably homogeneous groups of children. Adult samples could also be obtained in much the same manner; however, institutions other than schools would have to be used as the source. For example, all ministers, priests, and rabbis in a community could be contacted as the school principals were in the present study and asked to make referrals having particular types of problems.

Summary

11 third-grade boys were randomly assigned to three play groups. The boys had been referred by their teachers because of shy, withdrawn behavior. Group XA met in a play group (4 Ss), had a therapist, and received tangible reinforcements

for social approach behaviors. Group XB (4 Ss) was treated similarly to XA except that no tangible reinforcements were used. Group CA (3 Ss) met in a play group without a therapist present. 14 play sessions were held for each group. XA improved more than XB; XB improved more than CA; CA showed no improvement on the objective measures used. XA exhibited increased social adjustment and a decrease in discrete problem behavior. XB increased slightly in social adjustment. All groups failed to exhibit change in "productivity," "anxiety," and "general psychological adjustment."

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